AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A semiconductor device, comprising:

a first semiconductor package including a first curved substrate defining a first concave surface and a first convex surface~~, in which~~ and a plurality of first joining points ~~are formed~~, the first joining points are formed on the first convex surface and ~~including~~ include different areas for protruding electrodes; ~~and~~

a second semiconductor package including a second curved substrate defining a second concave surface and a second convex surface~~, in which~~ and a plurality of second joining points ~~are formed~~, the second joining points are formed on the second convex surface and ~~including~~ include different areas for the protruding electrodes and ~~being~~ are arranged so as to be opposed to the respective first joining points; and

a semiconductor chip positioned between the first convex surface of the first curved substrate and the second convex surface of the second curved substrate and flip-chip mounted to the first convex surface of the first curved substrate.

2. (Original) The semiconductor device according to claim 1, wherein the areas of each of the joining points are opening areas of an insulating layer on lands with which the protruding electrodes are joined.

3. (Original) The semiconductor device according to claim 1, wherein the areas of each of the joining points are gradually changed from a central portion toward an outer peripheral portion of the semiconductor package.

4. (Original) The semiconductor device according to claim 1, wherein as an interval between the first semiconductor package and the second semiconductor package becomes larger, the areas of the first joining points and the areas of the second joining points gradually become smaller.

5. (Original) The semiconductor device according to claim 1, wherein volumes of the protruding electrodes connected to each of the plurality of joining points are substantially the same.

6. (Currently Amended) A semiconductor device, comprising:

a first semiconductor package including a first curved substrate defining a first concave surface and a first convex surface; ~~and~~

a second semiconductor package including a second curved substrate defining a second concave surface and a second convex surface, the second semiconductor package stacked on the first semiconductor package through a plurality of protruding electrodes including different volumes such that the first convex surface opposes the second convex surface; and

a first semiconductor chip positioned between the first convex surface of the first curved substrate and the second convex surface of the second curved substrate and flip-chip mounted to the first convex surface of the first curved substrate.

7. (Original) The semiconductor device according to claim 6, wherein the volumes of the protruding electrodes are gradually changed from a central portion toward an outer peripheral portion of the semiconductor packages.

8. (Original) The semiconductor device according to claim 7, wherein as an interval between the first semiconductor package and the second semiconductor package becomes larger, the volumes of the protruding electrodes gradually become larger.

9. (Original) The semiconductor device according to claim 6, wherein each of the protruding electrodes has different amounts of conductive paste.

10. (Currently Amended) The semiconductor device according to claim 1, ~~wherein:~~

~~the first semiconductor package comprises:~~

~~a first carrier substrate; and~~

~~a first semiconductor chip, flip-chip mounted on the first carrier substrate, and~~

~~the second semiconductor package, comprises:~~

~~a second carrier substrate, mounted on the first carrier substrate through the protruding electrodes so as to be held above the first semiconductor chip;~~

further comprising a second semiconductor chip~~,~~ mounted on the second ~~carrier~~ curved substrate~~;~~ and

a sealing material sealing the second semiconductor chip to the second curved substrate.

11. (Currently Amended) The semiconductor device according to claim 10, wherein the first semiconductor package comprises a ball grid array with the first semiconductor chip, flip-chip mounted on the first convex surface of the first ~~carrier~~ curved substrate, and the second semiconductor package comprises any of a ball grid array and a chip-size package, in which the second semiconductor chip is mounted on the second concave surface of the second ~~carrier~~ curved substrate is mold-sealed.

12. (Currently Amended) An electronic device, comprising:

a first ~~carrier~~ curved substrate defining a first convex surface and a first concave surface and ~~, in which~~ a plurality of first joining points ~~are formed~~disposed on the first convex surface, the first joining points including different areas for protruding electrodes;

a first electronic component, flip-chip mounted on the first convex surface of the first ~~carrier~~ curved substrate;

a second ~~carrier~~ curved substrate defining a second convex surface and a second concave surface and~~, in which~~ a plurality of second joining points ~~are formed~~disposed on the second convex surface, the second joining points including

different areas for the protruding electrodes and being arranged so as to be opposed to the first joining points;

a second electronic component, mounted on the second concave surface of the second ~~carrier~~ curved substrate; and

a sealing material sealing the second electronic component.

13. (Currently Amended) An electronic device, comprising:

a first curved substrate defining a first convex surface and a first concave surface~~carrier substrate~~;

a first electronic component, flip-chip mounted on the first convex surface of the first ~~carrier~~ curved substrate;

a second curved substrate defining a second convex surface and a second concave surface~~carrier substrate~~, the second curved substrate mounted on the first ~~carrier~~ curved substrate through a plurality of protruding electrodes including different volumes, so as to be held above the first electronic component with the first convex surface opposing the second convex surface;

a second electronic component, mounted on the second concave surface of the second ~~carrier~~ curved substrate; and

a sealing material sealing the second electronic component.

14-15. (Cancelled)

16. (Currently Amended) ~~An electronic apparatus comprising:~~

~~a first semiconductor package;~~

~~a second semiconductor package, stacked on the first semiconductor package through a plurality of protruding electrodes including different volumes; and~~The electronic device of Claim 12, further comprising

a motherboard, on which the first semiconductor package is mounted.

17-22. (Cancelled)